

REMARKS

The specification has been amended to provide the status of the application cited on page 1 of the specification upon which priority of this application is based.

Claims 1 to 13 and 15 to 21 remain pending in the application and are submitted, without amendment, for reconsideration based on the following remarks.

Claims 1 and 16 were rejected on grounds of nonstatutory double patenting based on applicants' prior patent No. 6,069,955, which issued on application Serial 09/060,026 upon which the present application is based. Specifically, this application is a continuation-in-part (CIP) of the prior application. However, the rejection as articulated by the Examiner is confusing since he, on the one hand, says that the rejection is based on "nonstatutory double patenting" and, on the other hand, cites 35 U.S.C. §101 as apparently the statutory basis for the nonstatutory double patenting rejection. The Examiner points to claims 1 and 17 of applicants' prior patent No. 6,069,955, saying that claims 1 and 16 of this application have "similar" limitations and "represent similar scope" of claims 1 and 17 of the prior patent. The Examiner also states that the filing of a terminal disclaimer can be used to overcome the rejection. Taking all the Examiner's comments together, it is believed that the Examiner meant to reject claims 1 and 16 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 17 of applicants' prior patent No. 6,069,955. The response to this rejection is based on this belief, but if that belief is incorrect and the Examiner meant to state another ground of rejection, the Examiner is respectfully requested to state in a precise and concise manner the ground of rejection he intended to make. In the case of a double patenting rejection, the Examiner is referred to MPEP 804.

The double patenting rejection, as best understood, is respectfully traversed. The Examiner is reminded that since the analysis employed in an

obviousness-type double patenting determination parallels the guidelines for a rejection under 35 U.S.C. §103(a), the following factual inquiries are to be applied for determining obviousness when making an obviousness-type double patenting rejection (see MPEP 804, II, B, 1):

- (A) Determine the scope and content of the patent claim and the prior art relative to a claim in the application at issue;
- (B) Determine the differences between the scope and content of the patent claim and the prior art as determined in (A) and the claim in the application at issue;
- (C) Determine the level of ordinary skill in the pertinent art; and
- (D) Evaluate any objective indicia of nonobviousness.

It is submitted that the Examiner either has failed to make the factual inquiries as set forth above or, if he has made those inquiries, has not communicated in the Office Action his analysis based on those inquiries. Simply stating that claims 1 and 16 of this application have “similar” limitations and “represent similar scope” of claims 1 and 17 of the prior patent does not indicate why the Examiner believes the claims in the application are an obvious variation of the invention defined in the claims of the patent.

Claim 1 of this application is different in scope and is patentably distinct from claim 1 of applicants’ prior patent. This is seen from a comparison of the two claims and a comparison of Figures 3 in each of the present application and the patent. Specifically, claim 1 in this application requires an electronic tag, corresponding to smart card 211 in Figure 3 of this application, and a reader for reading authentication information from the electronic tag, corresponding to reader 215 in Figure 3 of this application. This combination is not shown in Figure 3 of the patent, nor is the combination claimed in claim 1 of the patent. Likewise, claim 16 of this application is different in scope and is patentably distinct from claim 17 of applicants’ prior patent. Claim 17 of the patent is dependent on claim 14 and must be read in combination therewith. Claim 16 of this application is a method claim that requires, *inter alia*, generating authentication information,

encrypting the authentication information, storing the encrypted information in an electronic tag, attaching the electronic tag to a product, and reading the encrypted information. This process is shown in Figure 3 of this application at 205, 206, 209, 211, and 215. This is not shown in Figure 3 of applicants' prior patent nor is it claimed in claims 14 and 17.

In view of the foregoing, reconsideration and withdrawal of the rejection based on nonstatutory double patenting is respectfully requested.

Claims 1, 5, 6, 8 to 10, 15, and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over an article of Fuji-Keizai USA, Inc., in view of U.S. Patent No. 4,758, 714 to Carlson et al. This rejection is respectfully traversed for the reason that the combination of the Fuji-Keizai article and the patent to Carlson et al. neither show nor suggest the claimed invention.

The claimed invention is a system and method for verifying authenticity of a manufactured product to protect against counterfeiting. In the practice of the claimed invention as set forth in claim 1, an electronic tag is attached to one of the product and product packaging. This electronic tag comprises a memory for storing authentication information for said product in encrypted form. A reader equipped with a decryption key reads the authentication information from said electronic tag to verify that the product is authentic. This is shown in Figure 3 where the electronic tag is in the form of a smart card 211 and is read by a reader 215. What the invention does is to authenticate the product; it does not authenticate the card, a payment or the identity of a customer. And claim 1 is quite clear on that point.

Claim 5 is dependent on claim 1 and adds a point of sale machine containing the reader for authenticating said product in front of a consumer prior to purchase of the product. Claim 6 is also dependent on claim 1 and adds that the reader comprises means for reading the electronic tag without physically contacting said electronic tag. Claim 8 is also dependent on claim 1 and adds that the authentication information is directed to a manufacturer of the product. Claim 9, also dependent on claim 1, adds that the authentication information is specific

to the product. Claim 10, also dependent on claim 1, adds a label having the authentication information printed thereon to be verified against the authentication information read by the reader. Claim 18, although a method claim dependent on claim 16, was included by the Examiner as similar to claim 10. Claim 18 recites the step of attaching a printed label to said product comprising said authentication information. Finally, claim 15, which is also dependent on claim 1, adds that the authentication information further comprises information for authenticating the electronic tag.

The primary reference relied on by the Examiner, entitled "Major Trends in Europe's Top 40 High-Tech Companies 1997", is a very brief survey of products currently manufactured and future plans of Gemplus of France. These products include "smart PVC cards, ABS smart cards, contactless cards, electronic tags, chip design, development of operating systems and application software, card printing and assembly, extended personalization services, card reader design and manufacturing, and interface design". New products include "an RF/ID product range." Under the topic of "Future plans", the article mentions "a smart card reader in PC Card format with a cryptographic engine" and new cards to "handle a wide range of functions for various applications such as computer security, information highways, healthcare, banking, and telecommunications and instantly encrypt and decrypt data." The article states that "It is expected that by the year 2010, most transactions will take place over electronic networks" and that "Smart cards are one of the ways that security can be offered on such information superhighways." The various applications for the Gemplus smart cards include "Internet commerce, pay-TV subscription, university cards, wireless telecommunications, laundromats, automatic fare collection booths, and banking."

It will be observed that nothing in the Fuji-Keizai article mentions or suggests protecting against counterfeiting. Virtually all the applications mentioned are concerned with commercial transactions and, by implication, the secure exchange of money. While it could well be that the type of electronic tag contemplated by the claimed invention could be manufactured by Gemplus, the

fact is that Gemplus has not, at least according to the Fuji-Keizai article, made such electronic tags nor has Gemplus contemplated the application of such electronic tags to preventing counterfeiting. To put it in more concrete terms of a specific example, suppose that Levi Strauss, the manufacturer of Levis® brand jeans, wants to prevent the sale of counterfeit jeans. The claimed invention allows the manufacturer to embed an electronic tag in the jeans, say behind the leather patch, an electronic tag which can be used to authenticate the jeans as authentic Levis® brand jeans.

The patent to Carlson et al. is directed to a point-of-sale (POS) mechanism which is used in transactions involving credit cards, negotiable instruments and the like. This device is in no way usable or intended to be used to authenticate a product to prevent counterfeiting.

It is clear from the foregoing that the combination of the Fuji-Keizai article and the patent to Carlson et al. do not suggest or otherwise make obvious under the standards of 35 U.S.C. §103(a) the claimed invention. The rejection is therefore clearly in error and withdrawal of the rejection is respectfully requested.

Although not clearly stated by the Examiner, and as best understood, it is believed that the Examiner intended to reject claim 2 under 35 U.S.C. §103(a) as being unpatentable over the Fuji-Keizai article and the patent to Carlson et al., further in view of U.S. Patent No. 5,901,303 to Chew. This rejection is also respectfully traversed for the reason that the combination of the Fuji-Keizai article and the patents to Carlson et al. and Chew neither show nor suggest the claimed invention.

Claim 2 is dependent on claim 1 and recites that the electronic tag is a smart card. The patent to Chew is directed to smart cards, systems using smart cards and methods of operating said cards in systems. Chew, however, does not address the problem solved by the claimed invention and that is the protection of manufactured goods against counterfeiting.

From the foregoing, it is clear that the rejection of claim 2 based on the combination of the Fuji-Keizai article and the patents to Carlson et al. and Chew is

in error, and withdrawal of the rejection is respectfully requested.

Although not clearly stated by the Examiner, and as best understood, it is believed that the Examiner intended to reject claim 3 under 35 U.S.C. §103(a) as being unpatentable over the Fuji-Keizai article and the patent to Carlson et al., further in view of U.S. Patent No. 5,367,148 to Storch et al. This rejection is also respectfully traversed for the reason that the combination of the Fuji-Keizai article and the patents to Carlson et al. and Storch et al. neither show nor suggest the claimed invention.

Claim 3 is dependent on claim 1 and adds that the electronic tag is embedded into one of the product and product packaging product. The patent to Storch et al. is directed to counterfeit detection, but the approach by Storch et al. is to use of random ID numbers on a product return card and a product package. The Storch et al. patent is specifically acknowledged on page 3, line 17, of this patent application. Problems with this approach are outlined bridging pages 3 and 4 of this patent application. The electronic tag used in the claimed invention is a completely different approach than that taken by Storch et al. and involves none of the problems associated with the Storch et al. approach.

It is therefore clear that the rejection of claim 3 based on the combination of the Fuji-Keizai article and the patents to Carlson et al. and Storch et al. is in error, and withdrawal of the rejection is respectfully requested.

Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over the Fuji-Keizai article in view of U.S. Patent No. 5,740,250 to Moh, further in view of the patent to Carlson et al. This rejection is respectfully traversed for the reason that the combination of the Fuji-Keizai article and the patents to Moh and Carlson et al. fail to show or suggest the claimed invention.

Claim 4 is dependent on claim 1 and adds that the authentication information is encrypted using a private key and that the reader decrypts the information using a corresponding public key. The patent to Moh is directed to a tame automorphism based encryption system using public/private keys for secure data transmission. Moh is not concerned with protecting manufactured goods from

counterfeiting.

It is therefore clear that the rejection of claim 3 based on the combination of the Fuji-Keizai article and the patents to Moh and Carlson et al. is in error, and withdrawal of the rejection is respectfully requested.

Claims 7 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Fuji-Keizai article in view of U.S. Patent No. 5,140,634 to Guillou et al. This rejection is respectfully traversed for the reason that the combination of the Fuji-Keizai article and the patent to Guillou et al. fail to show or suggest the claimed invention.

Claim 7 is dependent on claim 1 and recites that a zero-knowledge protocol is used to make authentication information resistant to duplication. Claim 17 is a method claim dependent on claim 16 and recites the step of using a zero-knowledge protocol to make authentication information resistant to duplication. The patent to Guillou et al. is related to a method and system for authenticating messages with zero-knowledge proof and signing of messages. Guillou et al. have nothing to do with protecting manufactured goods from counterfeiting.

Since neither the Fuji-Keizai article nor the patent to Guillou et al. patent have any thing to do with protecting manufactured goods from counterfeiting, it is clear that the rejection of claims 7 and 17 based on the combination of the Fuji-Keizai article and the patent to Guillou et al. is in error, and withdrawal of the rejection is respectfully requested.

Claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over the Fuji-Keizai article in view of the patent to Storch et al. This rejection is respectfully traversed for the reason that the combination of the Fuji-Keizai article and the patent to Storch et al. fail to show or suggest the claimed invention.

Claim 11 is dependent on claim 9 and recites that the authentication information comprises one or more of product color, product shape, product serial number, product weight, product routing, information, and product chemical composition. Claim 9, in turn, is dependent on claim 1 and recites that the authentication information is specific to the product.

While the Storch et al. patent, unlike the Fuji-Keizai article, is concerned with counterfeit protection, there is nothing in Storch et al. that would suggest the limitations of claims 9 and 11. Furthermore, there is nothing in the combination of the Fuji-Keizai article or in the Storch et al. patent that would suggest the claimed invention as recited in the base independent claim 1. Therefore, it is clear that the rejection of claim 11 based on the combination of the Fuji-Keizai article and the patent to Storch et al. is in error, and withdrawal of the rejection is respectfully requested.

The basis for the rejection of claim 12 is unclear. The Examiner states that claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over the Fuji-Keizai article, but then makes reference to an Apple® computer and states that the rationale for the rejection of claim 12 is the same as that given for claim 1. However, claim 1 was rejected as unpatentable over the combination of the Fuji-Keizai article and the patent to Carlson et al. Therefore, the rejection of claim 12 appears to be based on the combination of the Fuji-Keizai article in combination with the patent to Carlson et al. and Official notice taken by the Examiner of the Apple® computer. Assuming that is the case, the rejection is respectfully traversed for the reason that the combination of the Fuji-Keizai article, the patent to Carlson et al. and the Examiner's Official notice fails to show or suggest the claimed invention.

Claim 12 is dependent on claim 9 and recites that the authentication information comprises a graphic image of the product. It is not at all clear how the Examiner equates this with the Apple® computer, but there is certainly nothing in the Apple® computer, whether it be the graphic user interface (GUI) or icons, that would suggest using a graphic image of a product within authentication information specific to the product that is used to protect the product against counterfeiting. Furthermore, if the Examiner intends to take Official notice of this or any other well known prior art, he is reminded of the requirements for doing so as set out in MPEP 2144.03. Since it is not clear from the Examiner's rejection what he may have intended to take Official notice of, Applicants reserve their

right to traverse any such Official notice until such time as the Examiner clearly articulates the subject matter of which he intends to Office notice.

Since it is clear that the rejection of claim 12 based on the combination of the Fuji-Keizai article, the patent to Carlson et al. and the Examiner's Official notice is in error, and withdrawal of the rejection is respectfully requested.

Claims 13 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Fuji-Keizai article in view of U.S. Patent No. 5,971,435 to DiCesare et al., further in view of the patent to Carlson et al. This rejection is respectfully traversed for the reason that the combination of the Fuji-Keizai article and the patents to DiCesare et al. and Carlson et al. fail to show or suggest the claimed invention.

Claim 13 is dependent on claim 9 and recites that the authentication information comprises an ownership history of the product. Claim 20 is a method claim which is dependent on claim 16 and recites the step of recording an ownership history of said product in said electronic tag. The patent to DiCesare et al. is directed to a method and system for verifying the authenticity and ownership of an autograph, such as an autographed item of memorabilia. The process is shown in Figure 1 of DiCesare et al. and involves a celebrity autographing an item in the presence of a consumer and authentication company representative, signing by the consumer and representative a numbered voucher bearing a description of the autographing event, affixing the code number to the item, retaining in a database maintained by the authenticating company the voucher and the information contained thereon, and providing the consumer with a certificate of authenticity by the authentication company. This is the type of authenticating system described on pages 3 and 4 of the present application, one of the problems of which is the requirement of the authentication company maintaining a database. In any case, there is nothing in DeCesare et al. that would suggest the use of an electronic tag as used in the practice of the claimed invention.

From the foregoing, it is clear that the rejection of claims 13 and 20 based on the combination of the Fuji-Keizai article and the patents to DiCesare et al. and

Carlson et al. is in error, and withdrawal of the rejection is respectfully requested.

Claim 19 was rejected under 35 U.S.C. §103(a) as being unpatentable over the Fuji-Keizai article in view of U.S. Patent No. 5,164,988 to Matyas et al. This rejection is respectfully traversed for the reason that the combination of the Fuji-Keizai article and the patent to Matyas et al. fail to show or suggest the claimed invention.

Claim 19 is a method claim which is dependent on claim 16 and recites the step of erasing the authentication information from said electronic tag after reading. The patent to Matyas et al. is directed to a method to establish and enforce a network cryptographic security policy in a public key cryptosystem. The Matyas et al. method involves making a certified public key unavailable in the event that there is an attempt to change a configuration vector of a device. Matyas et al. has nothing whatsoever to do with protecting manufactured goods from counterfeiting not does Matyas et al. have anything to do with smart cards as described in the Fuji-Keizai article.

It is clear that the rejection of claim 19 based on the combination of the Fuji-Keizai article and the patent to Matyas et al. is in error, and withdrawal of the rejection is respectfully requested.

Claims 16 and 21 were rejected under 35 U.S.C. §103(a) in paragraph 26 on page 20 of the Office Action, but the grounds are unclear. The Examiner makes reference to claims 1 to 15, but the specific grounds for the rejection is not stated. The rejection is nevertheless traversed for the reason that none of the references cited by the examiner, taken singly or in combination would suggest the claimed invention.

Claim 16 is directed to a method for verifying the authenticity of a manufactured product. The claimed method comprises the steps of:

- “generating authentication information for a manufactured product;
- “encrypting said authentication information using a private key;
- “storing said encrypted information in electronic tag;
- “attaching said electronic tag to one of said manufactured product and

manufactured product packaging;

“reading said encrypted authentication information from said electronic tag; and

“decrypting said encrypted information using a public key corresponding to said private key to verify that said manufactured product is authentic.”

Quite simply stated, this combination of steps is nowhere suggested by the prior art of record, and the Examiner’s attempt to cobble together references to meet the specific limitations recited in claim 16 can only be characterized as impermissible hindsight. Claim 21, treated separately below, is also clearly patentable over the prior art of record. Therefore, a rejection of claims 16 and 21 over any combination of references of record would be clearly in error, and withdrawal of any such rejection is respectfully requested.

Claim 21 is separately rejected in paragraph 27 on page 20 under 35 U.S.C. §103(a) as being unpatentable over the Fuji-Keizai article and the patent to Matyas et al., further in view of the patent to Carlson et al. These rejections are respectfully traversed for the reason that the combination of the Fuji-Keizai article and the patents to Matyas et al. and Carlson et al. fail to show or suggest the claimed invention.

Claim 21 is directed to a method for detecting manufactured products in a parallel market, i.e., so-called “grey market”, as illustrated in Figure 4 of the drawings in this patent application. This method comprises the steps of:

“generating authentication information for a manufactured product including routing information for the product;

“encrypting said authentication information using a private key;

“storing said encrypted information in electronic tag;

“attaching said electronic tag to one of the manufactured product and manufactured product packaging;

“reading said encrypted authentication information from said electronic tag at a point of sale; and

“decrypting said encrypted information using a public key corresponding

to said private key to verify said routing information matches routing information of said point of sale to determine if said manufactured product is sold in a parallel market.”

None of the references relied on by the Examiner to reject claim 21 have anything to do with protecting manufactured goods from counterfeiting, in general, and certainly nothing to do with protecting manufactured goods in a grey market situation. It is clear that the rejection of claim 21 based on the combination of the Fuji-Keizai article and the patents to Matyas et al. and Carlson et al. is in error, and withdrawal of the rejection is respectfully requested.

The Examiner is reminded of the basic considerations which apply to obviousness rejections as set out in MPEP 2141. Specifically, “When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:

- “(A) The claimed invention must be considered as a whole;
- “(B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- “(C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
- “(D) Reasonable expectation of success is the standard with which obviousness is determined.”

It is submitted that throughout the lengthy prosecution of this patent application, the Examiner has failed to follow the instructions set out in MPEP 2141 and has, instead, engaged in speculation, misinterpretation and impermissible reconstruction of the references relied upon. The standard of 35 U.S.C. §103(a) is an objective standard, as set out above, and it is the Examiner’s duty to apply that objective standard, not to engage in subjective speculation as is evident in his “Response” and “Conclusion”. The fact is that the Examiner has failed to find any prior art which protects manufactured goods against counterfeiting in the manner according to the claimed invention. For that reason, it is respectfully requested that the application be reconsidered, that claims 1 to 13 and 15 to 21 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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Clean Copy of Amended Paragraphs

Paragraph on page 1, lines 11 to 13, now reads as follows:

This application is a continuation-in-part (CIP) of copending application
Serial No. 09/060,026, filed April 14, 1998, now U.S. Patent No. 6,069,955,
issued May 30, 2000.

C1